

NIST
Center for Nanoscale Science and Technology (CNST)
Nanofab



Coral Software
Installation and User Guide

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I. Installing Java Web Start

In order to run Remote Coral, it is necessary to install the Java runtime environment (version 1.4.2_08 or higher) and Java Web Start. Download the installer: [Nanofab Coral Software](#) and follow the on-screen instructions. After successful installation, there will be a shortcut to "Java Web Start" on the desktop (*Figure 1*).



Figure 1: Java Web Start shortcut on desktop

Double click on the shortcut to begin the Java Web Start setup utility. With the installation of Java Web Start, there are four pre-installed applications to demonstrate the Java Web Start technology (*Figure 2*). These can be optionally removed by doing the following: Go to **File -> Preferences** and select the Advanced tab (*Figure 3*). Click the "Clear Folder" button and then select "Yes" on the confirmation dialog (*Figure 4*) to remove pre-installed applications.

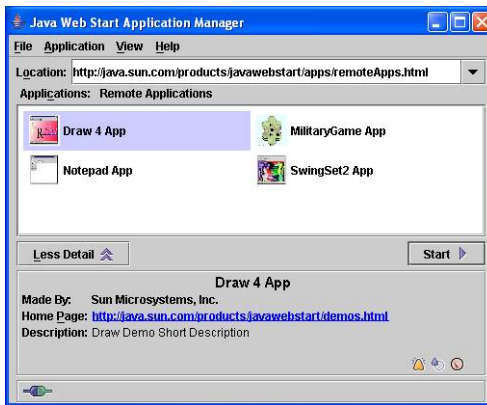


Figure 2: Java Web Start main screen

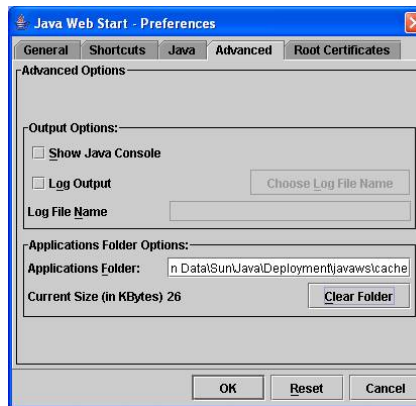


Figure 3: Java Web Start preferences screen



Figure 4: Clearing pre-existing Java Web Start applications

II. Installing Remote Coral

Open Java Web Start and type <http://nanofab.nist.gov/coral/etc/> into the "Location" bar. Press the Enter key to populate the applications section with an icon for "NIST Coral Remote" (*Figure 5*). Double click on this icon to begin downloading Remote Coral (*Figure 6*).

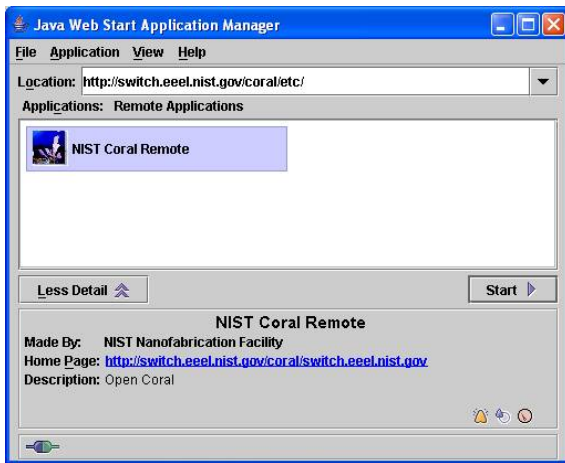


Figure 5: Java Web Start with Remote Coral



Figure 6: Loading Remote Coral

The first time Coral is run, it will ask for permission to trust Verisign (*Figure 7*). Click on "Start" to accept. It will then ask for permission to install Bouncy Castle (*Figure 8*). Click on "Install" to accept.



Figure 7: Verisign security dialog



Figure 8: Bouncy Castle security dialog

The application will ask to display a shortcut to "NIST Coral Remote" on the desktop (*Figure 9*). It is recommended, though not necessary, to select "Yes" and create a shortcut directly to Remote Coral (*Figure 10*).



Figure 9: Coral desktop integration dialog



Figure 10: Remote Coral shortcut on the desktop

III. Logging in to Coral

Double click on the "NIST Coral Remote" icon to start Coral. The login screen offers two forms of authentication -

one by NIST domain account and the other by NIST email account (Figure 11). Select an authentication method, enter a username/password, and press "OK". Once the authentication is complete, the main Coral window will appear (Figure 12).



Figure 11: Coral login screen

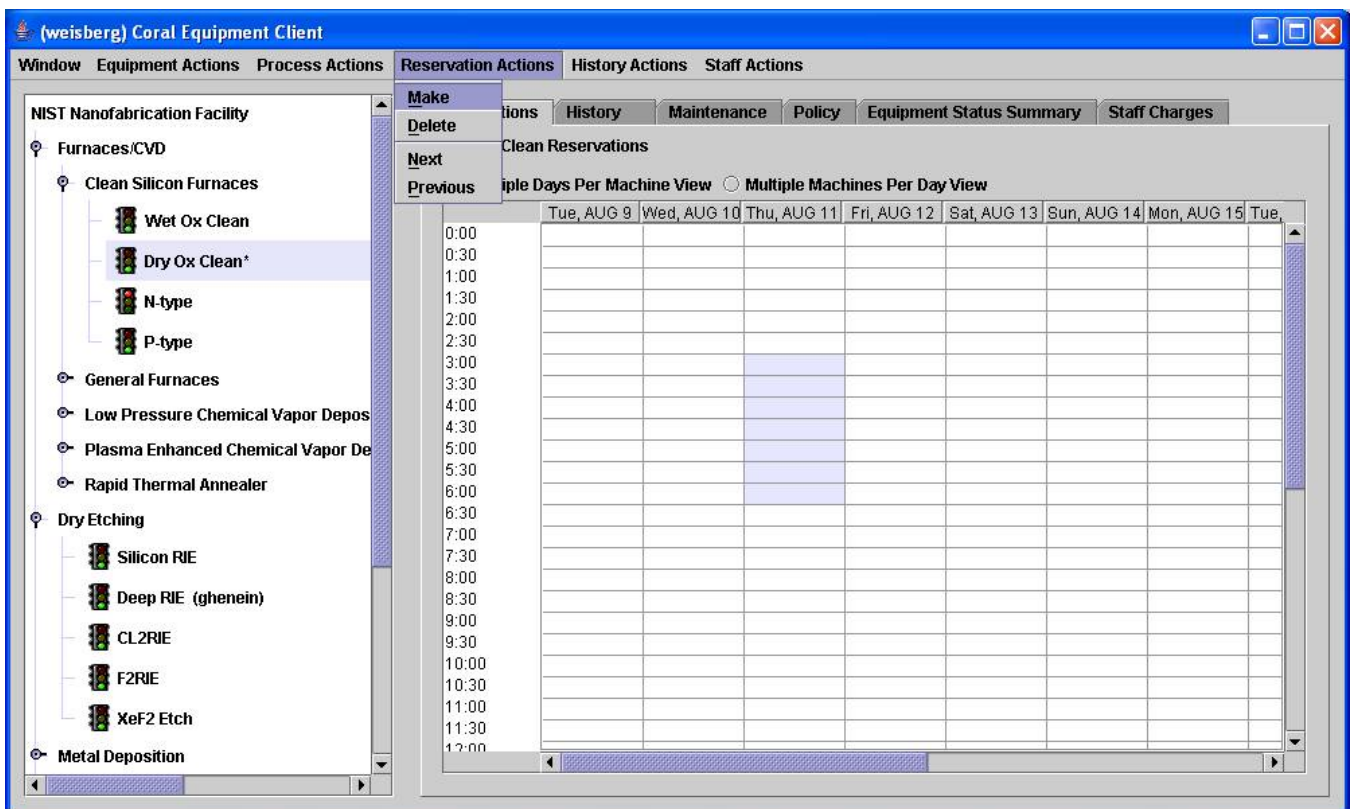


Figure 12: Coral main screen

Before enabling equipment or making reservations **it is necessary to complete the login process**. Scroll down to find the section labeled "Users". Select the first user slot which is not currently enabled. For example, if there is one user currently in the lab, then select the second user slot and go **Equipment Actions -> Enable** (Figure 13).

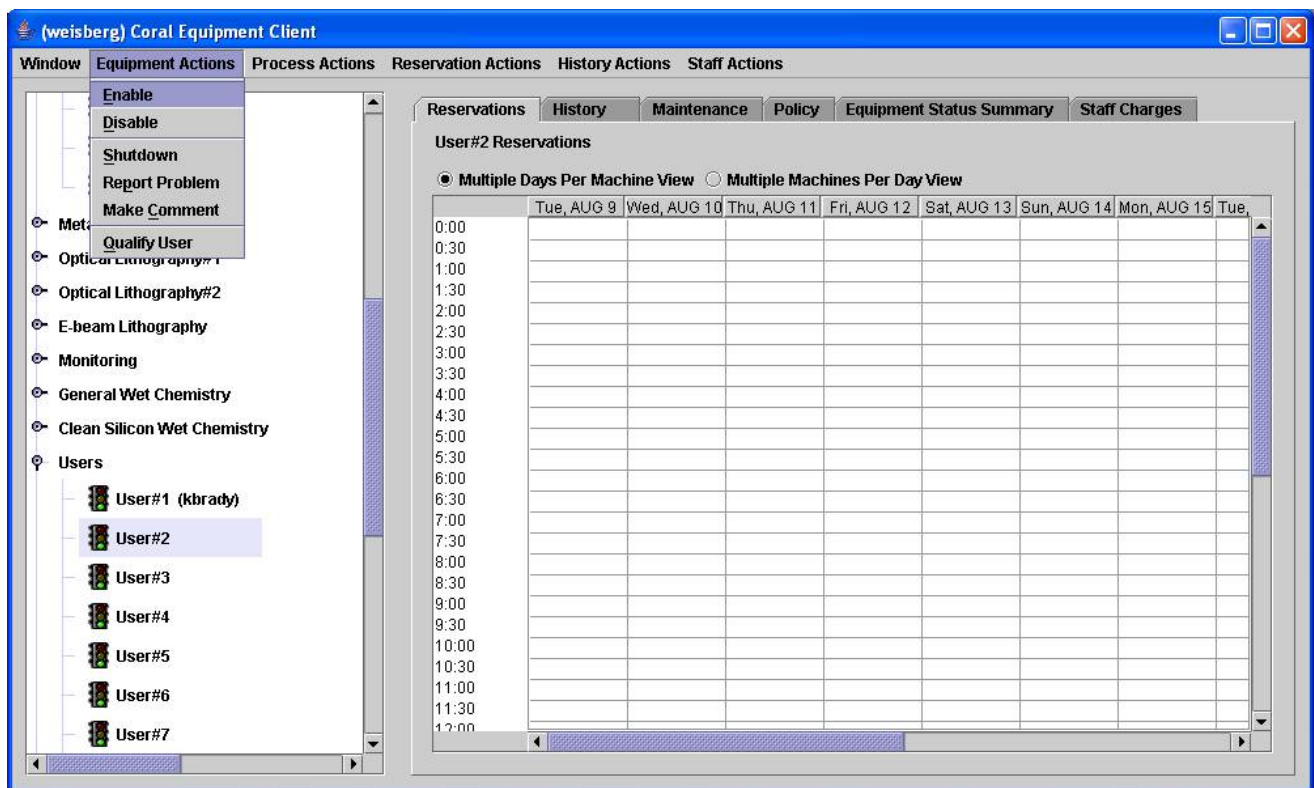


Figure 13: Completing the login process

A dialog box will appear containing machine enable information. Simply click on "OK" to complete the login process (Figure 14).

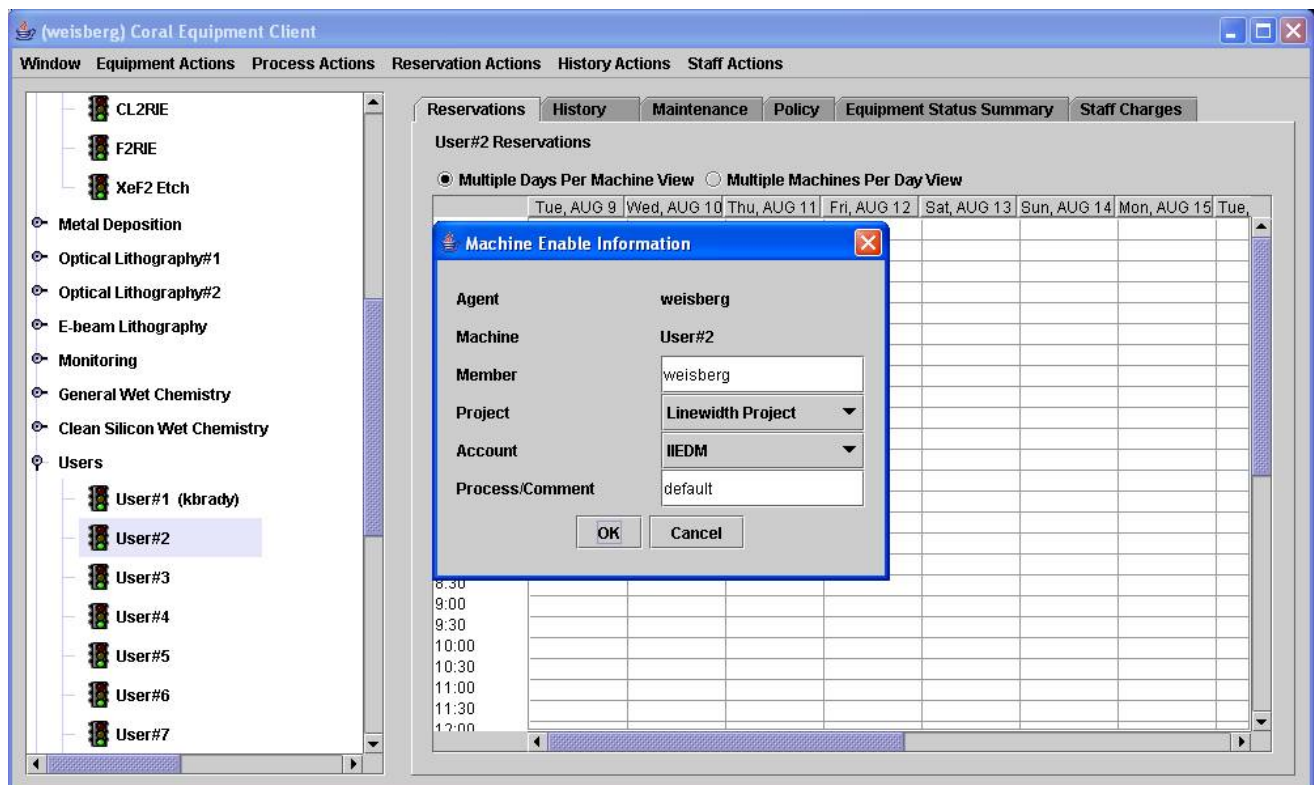


Figure 14: Completing the login process

The login process is now complete. To verify this, ensure that your member name appears in parenthesis following the user slot that was enabled (*Figure 15*).

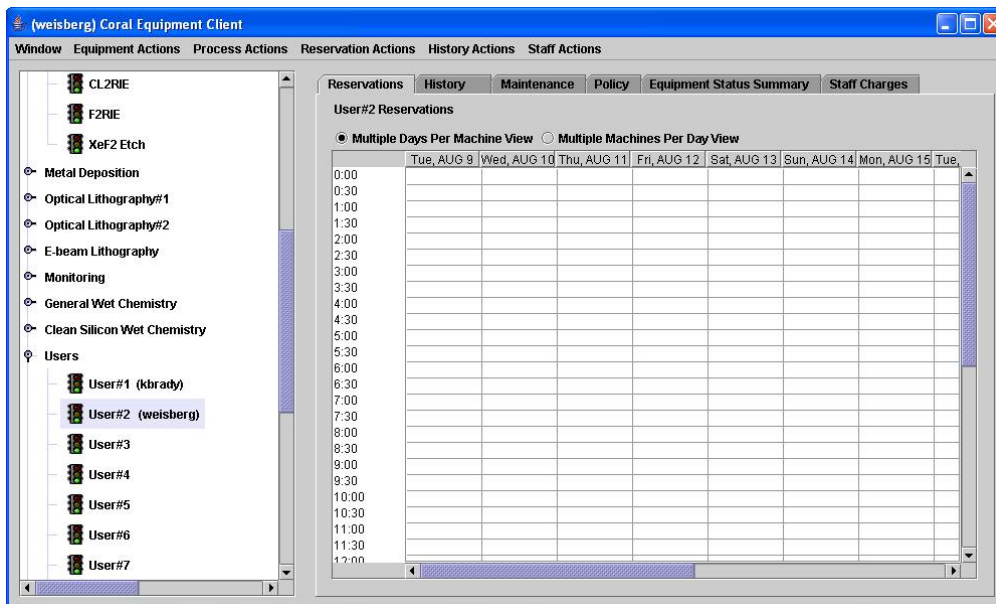


Figure 15: User logged in to User#2 slot

IV. Making a Reservation

Select the name of the machine to be reserved in the left panel. Machines for which you are privileged to use will be marked with an asterisk following the machine name. In the right panel, highlight a block of time to reserve. Click on **Reservation Actions -> Make** to open the machine reservation dialog (*Figure 16*).

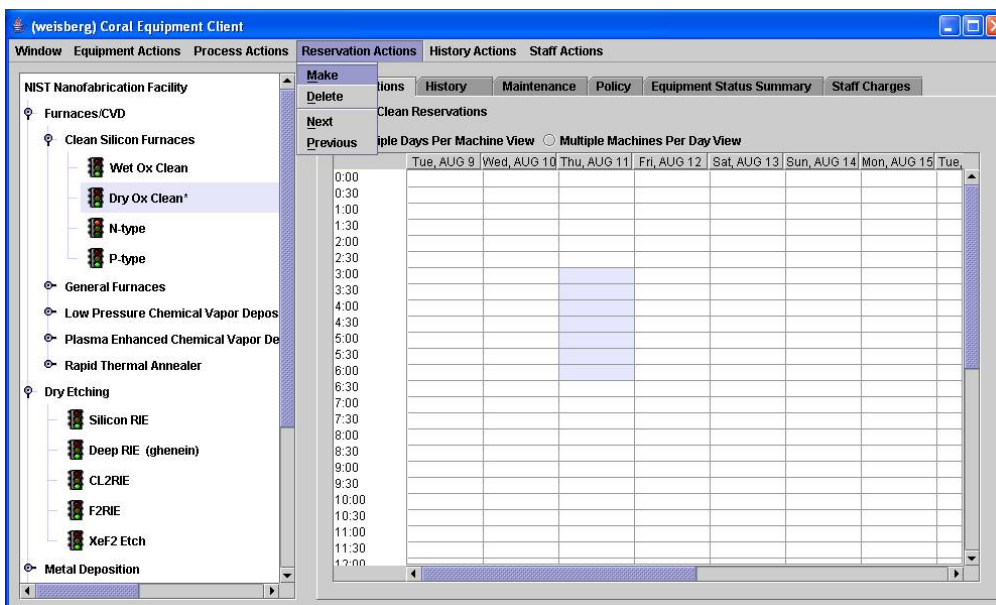


Figure 16: Reserving equipment

Input all necessary information in the reservation dialog. Place any comments about the reservation in the **Process/Comment** field. When finished, click "OK" to complete the reservation (*Figure 17*).

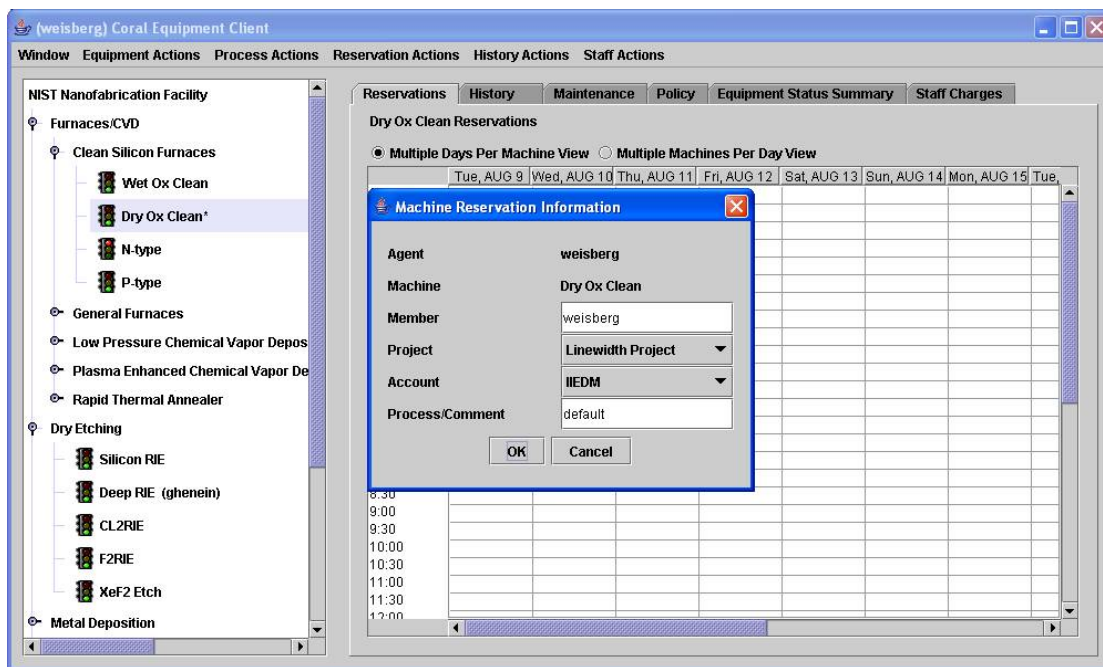


Figure 17: Machine Reservation dialog

When the reservation is complete, your member name will appear in every timeslot of the reservation for the specified machine (*Figure 18*).

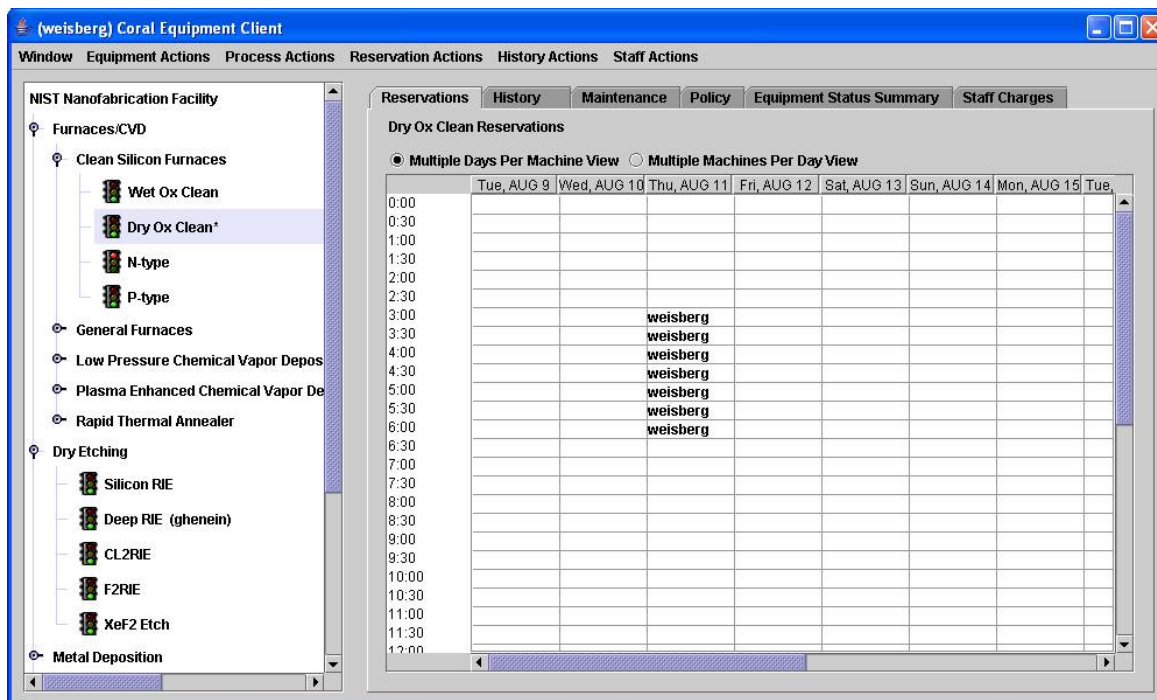


Figure 18: Reservation complete

V. Deleting a Reservation

In the left panel, select the name of the machine from which to remove a reservation. In the right panel, highlight a reservation by clicking on any one of the individual slots within the reservation block. Click on **Reservation Actions -> Delete** (Figure 19).

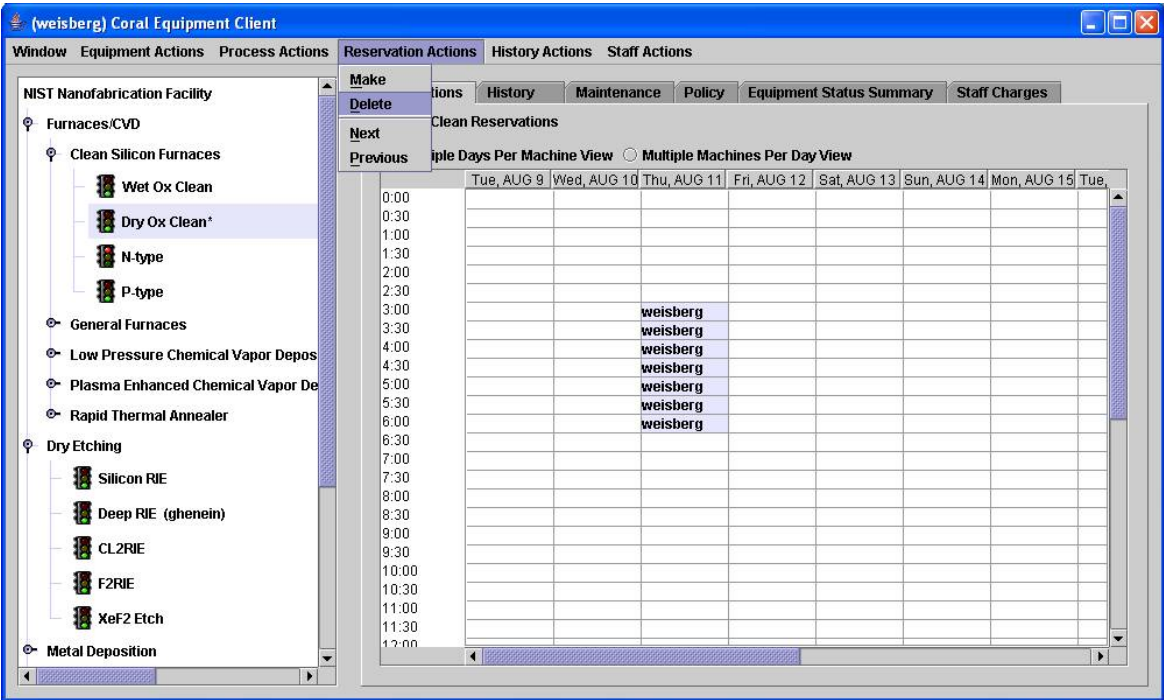


Figure 19: Deleting a reservation

The reservation block will be removed from the schedule (Figure 20).

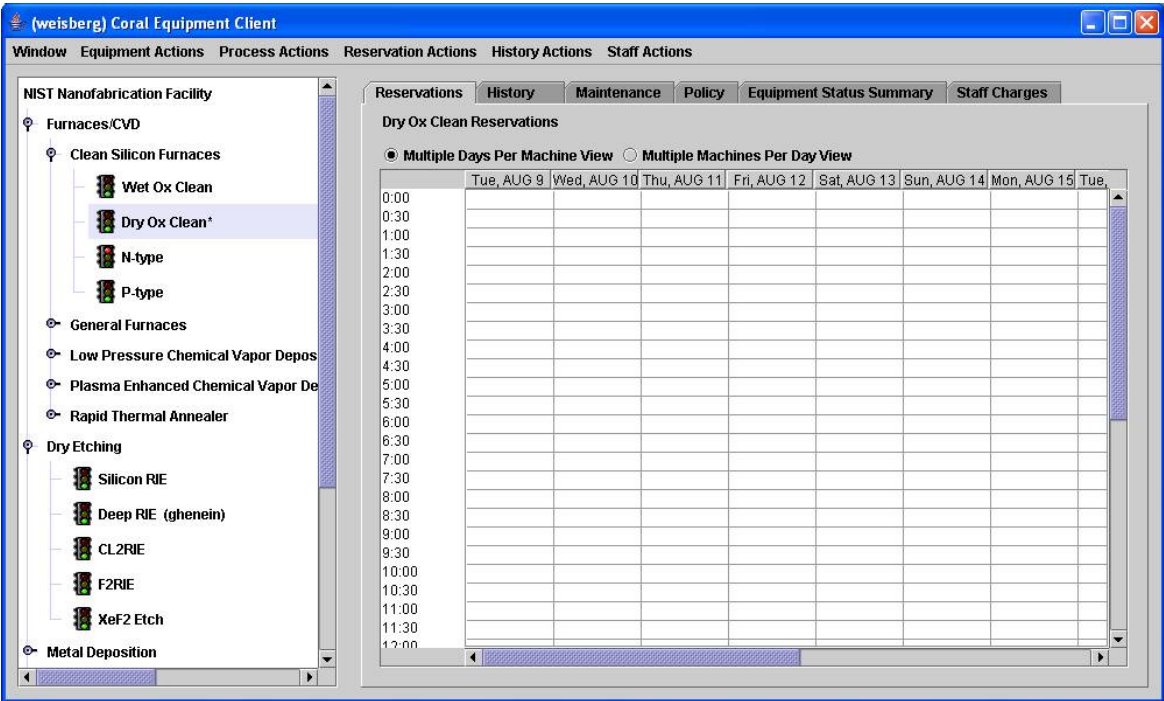


Figure 20: Reservation deleted

VI. Enabling equipment

Select the name of the machine to be enabled in the left panel. Machines for which you are privileged to use will be marked with an asterisk following the machine name. Click on **Equipment Actions -> Enable** (Figure 21).

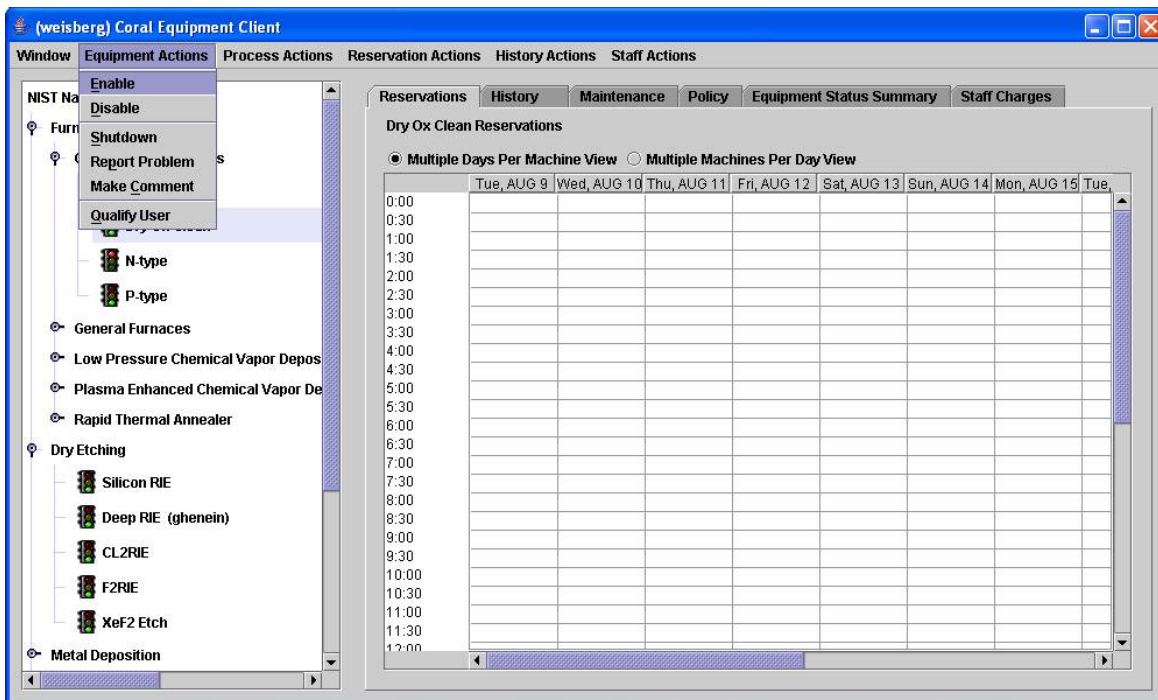


Figure 21: Enabling equipment

Input all necessary information in the enable dialog. Place any comments about the machine usage in the **Process/Comment** field. When finished, click "OK" to enable the machine (Figure 22).

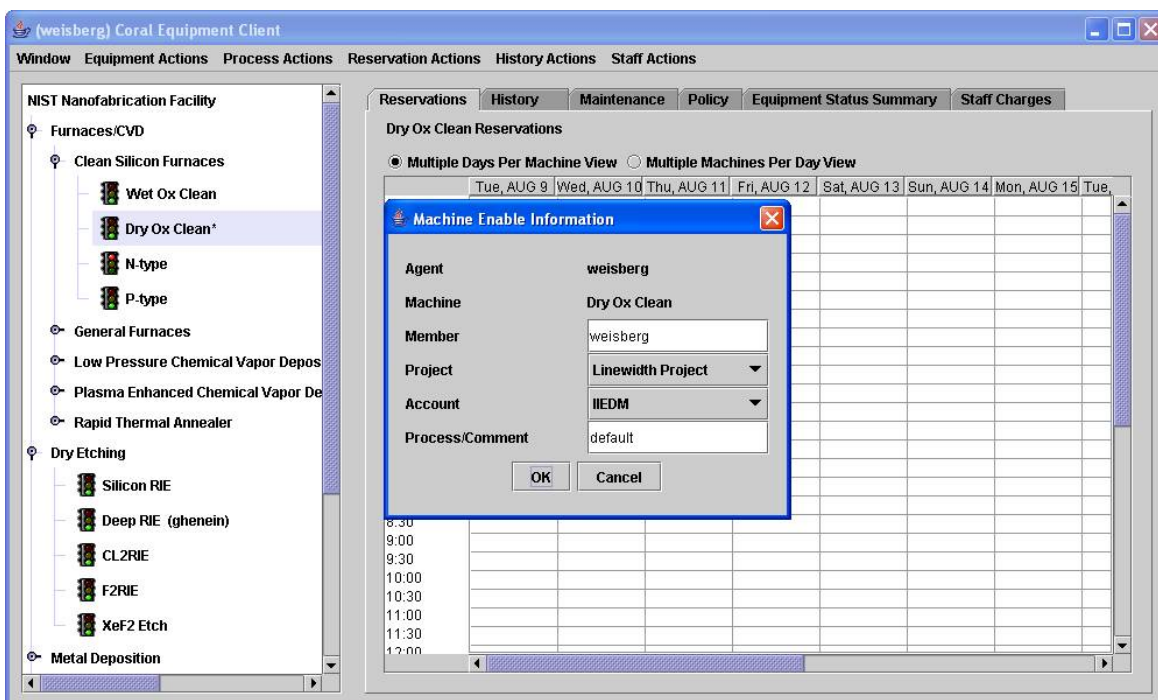


Figure 22: Enabling equipment dialog

When the machine becomes enabled, your member name will appear in parenthesis following the name of the machine (*Figure 23*). The system has now logged the start time of your usage cycle for this machine.

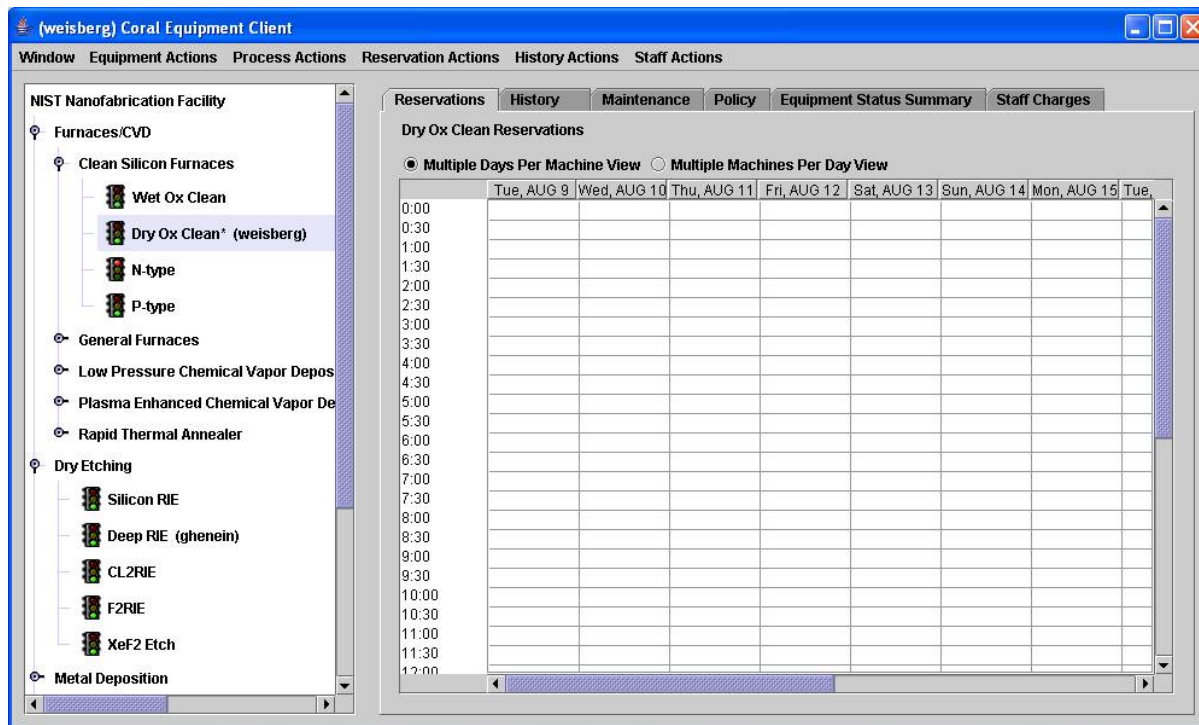


Figure 23: Equipment enabled

VII. Disabling equipment

Select the name of machine to be disabled in the left panel. Click on **Equipment Actions -> Disable** (*Figure 24*).

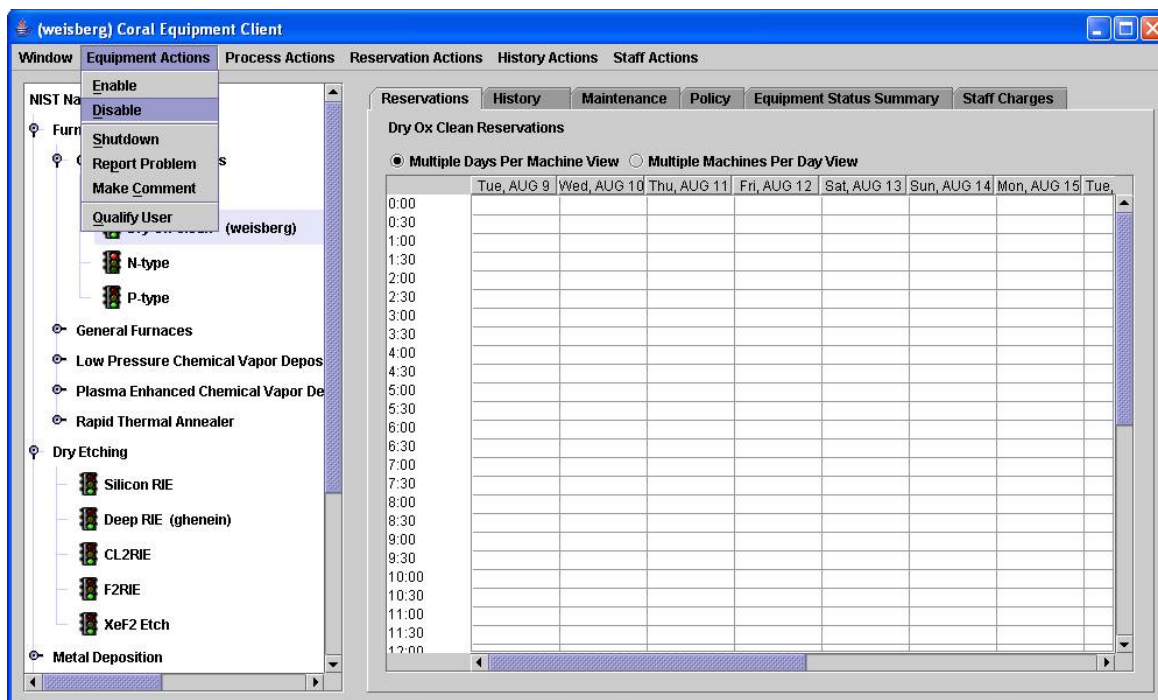


Figure 24: Disabling equipment

When the machine becomes disabled, your member name will no longer be displayed following the machine name (*Figure 25*). The system has now logged the end time of your usage cycle for this machine.

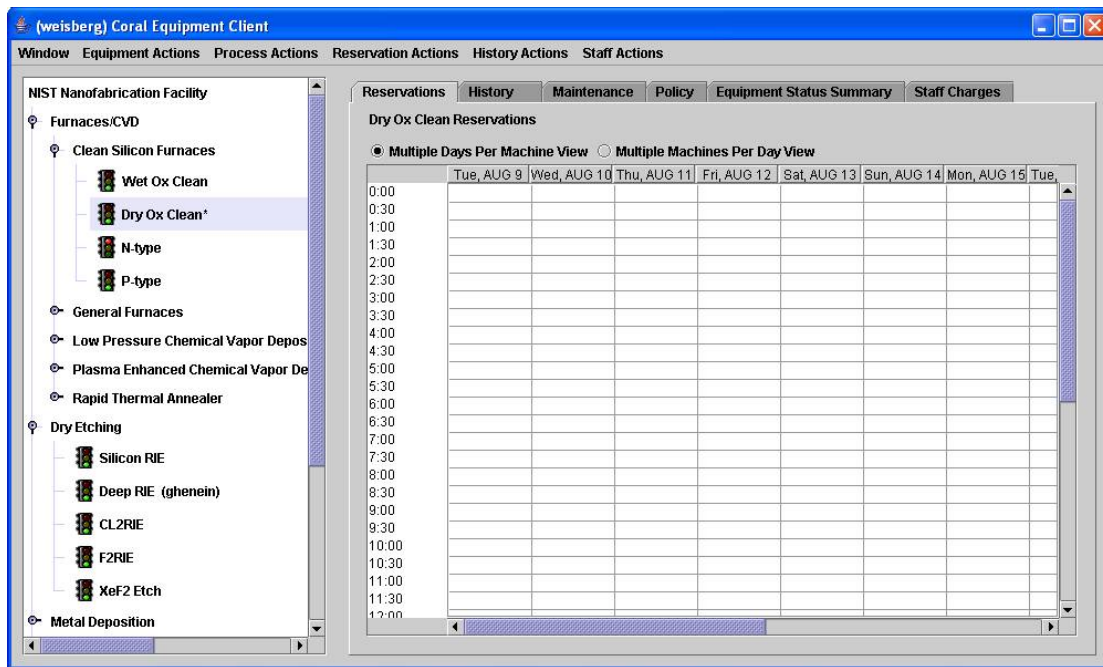


Figure 25: Equipment disabled

VIII. Reporting a problem

In the left panel, select the name of the machine which has a problem to be reported. Click on **Equipment Actions -> Report Problem** (*Figure 26*).

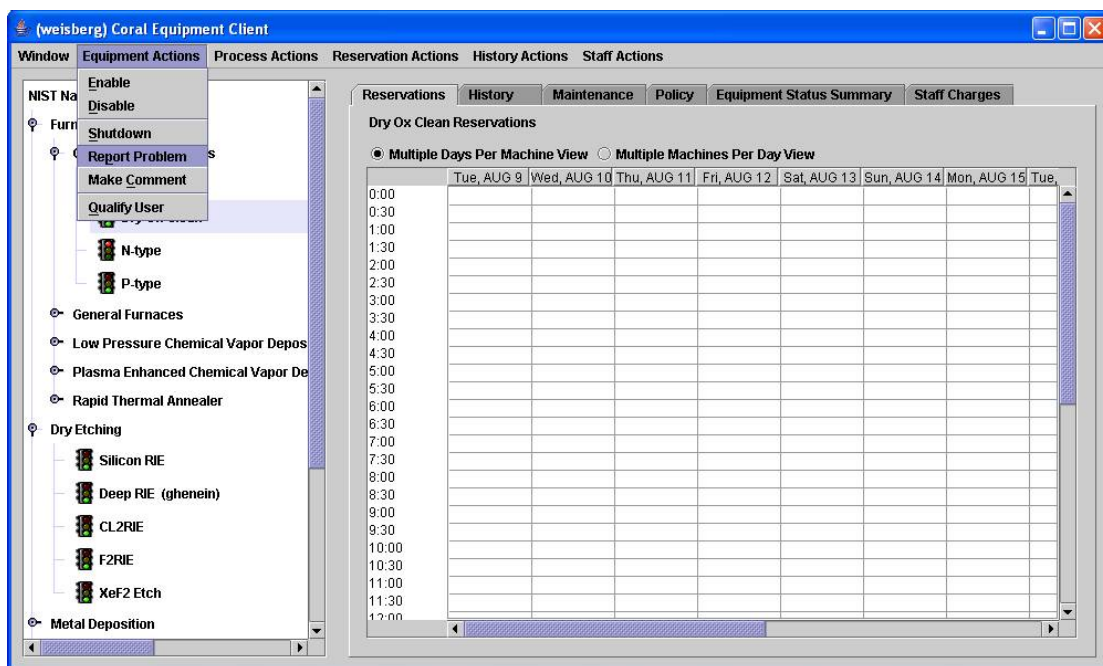


Figure 26: Reporting a problem

Input all necessary information in the problem report dialog. When finished, click "Submit" to submit the problem report (*Figure 27*).

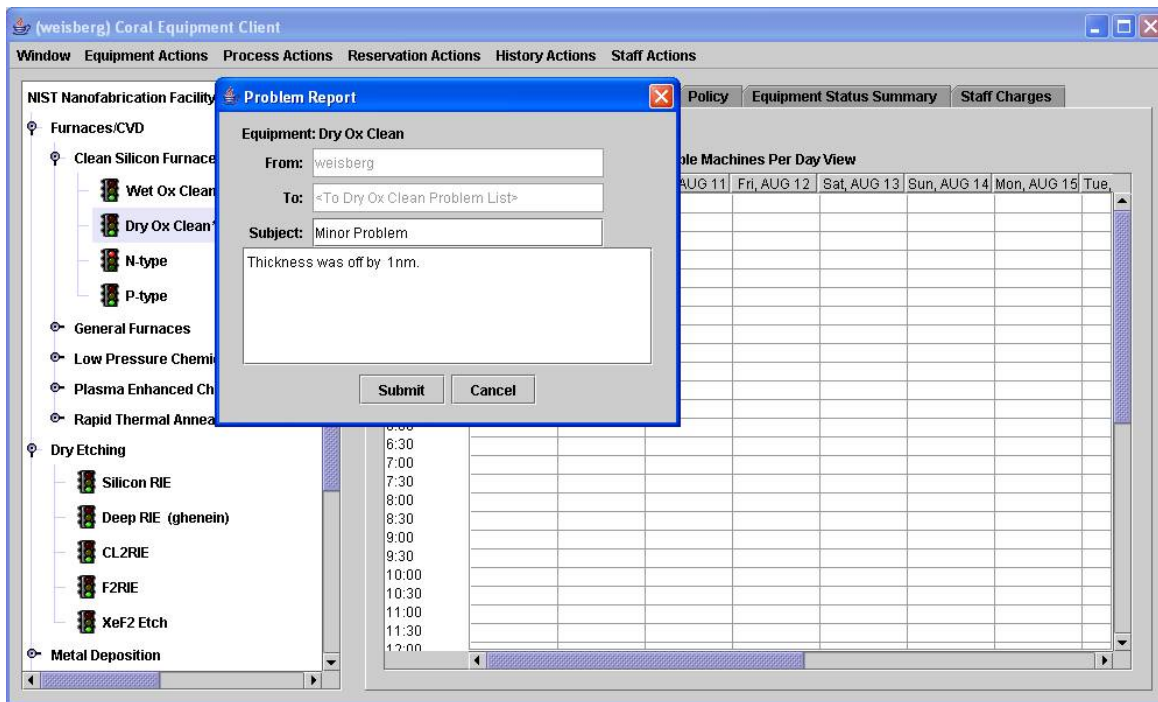


Figure 27: Problem report dialog

The status indicator beside the machine name will turn yellow indicating a problem has been reported (*Figure 28*). The machine is still available to be enabled/disabled as the problem is not critical.

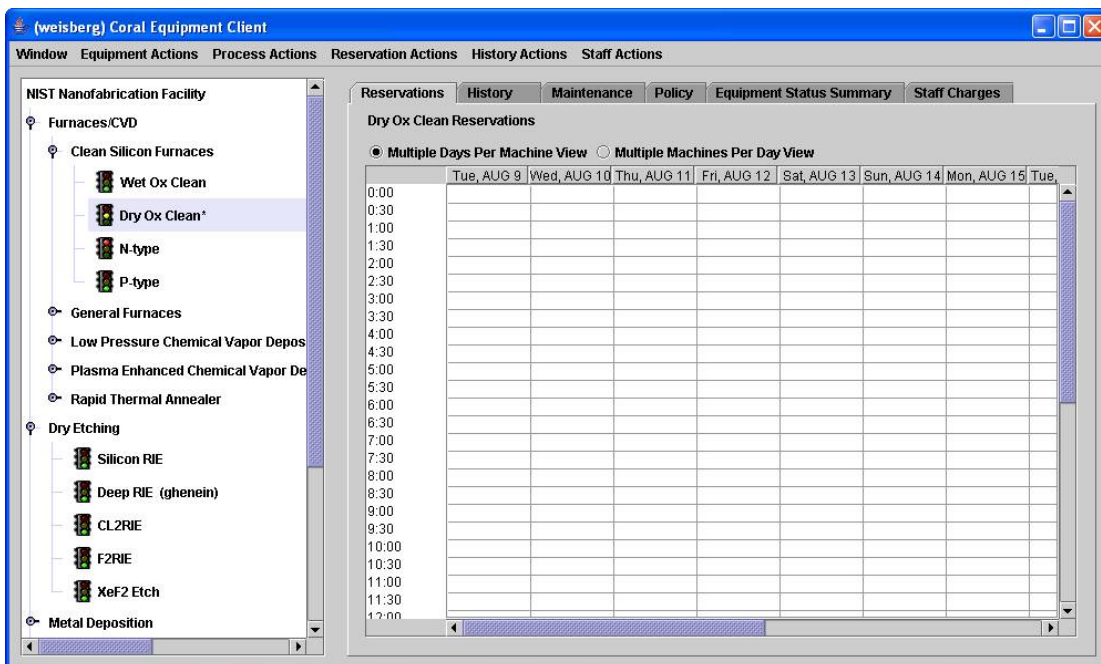


Figure 28: Problem logged, stoplight indicator now yellow

IX. Shutting down equipment

In the left panel, select the name of the machine which has a critical problem to be reported. Click on **Equipment Actions -> Shutdown** (Figure 29).

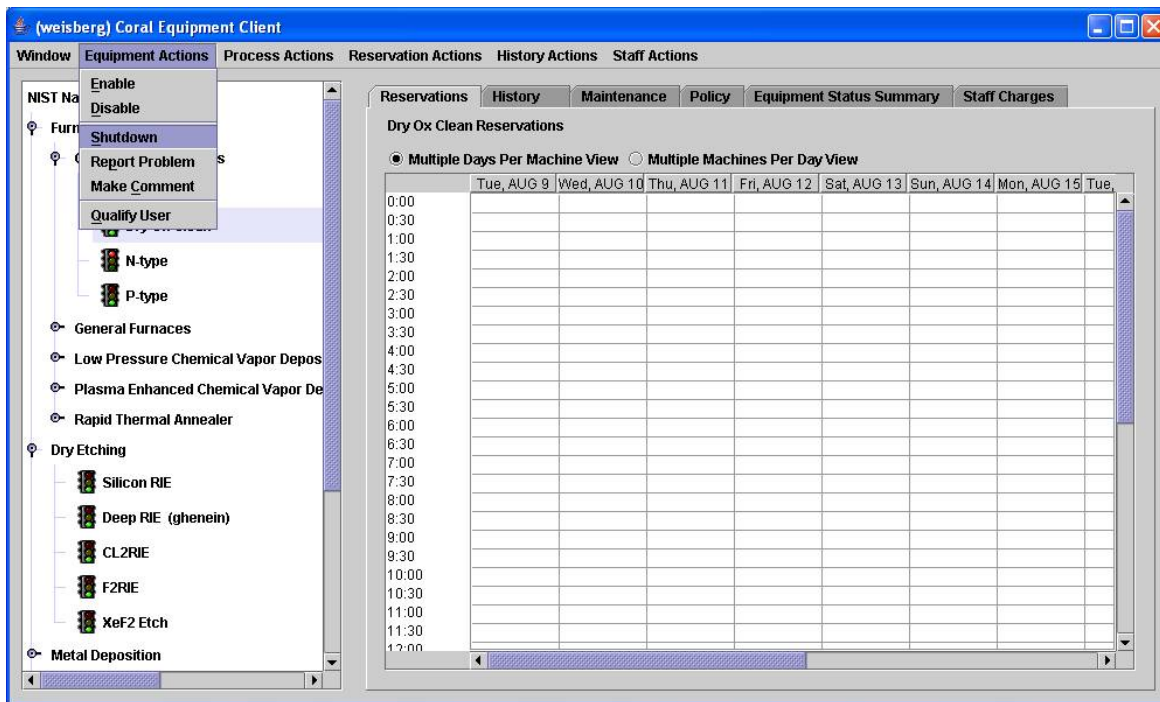


Figure 29: Shutting down equipment

Input all necessary information in the problem report dialog. When finished, click "Submit" to submit the problem report (Figure 30).

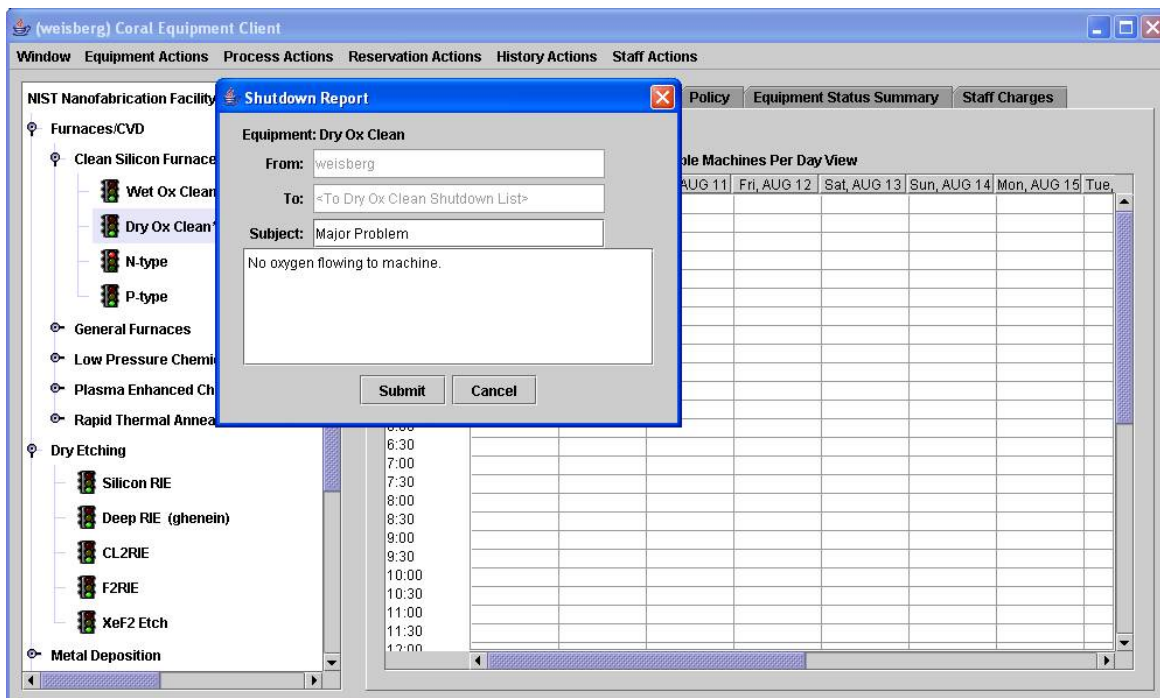


Figure 30: Shutdown report dialog

The status indicator beside the machine name will turn red indicating a critical problem has been reported (Figure 31). The machine is not available to be enabled/disabled until the problem is remedied by a staff member.

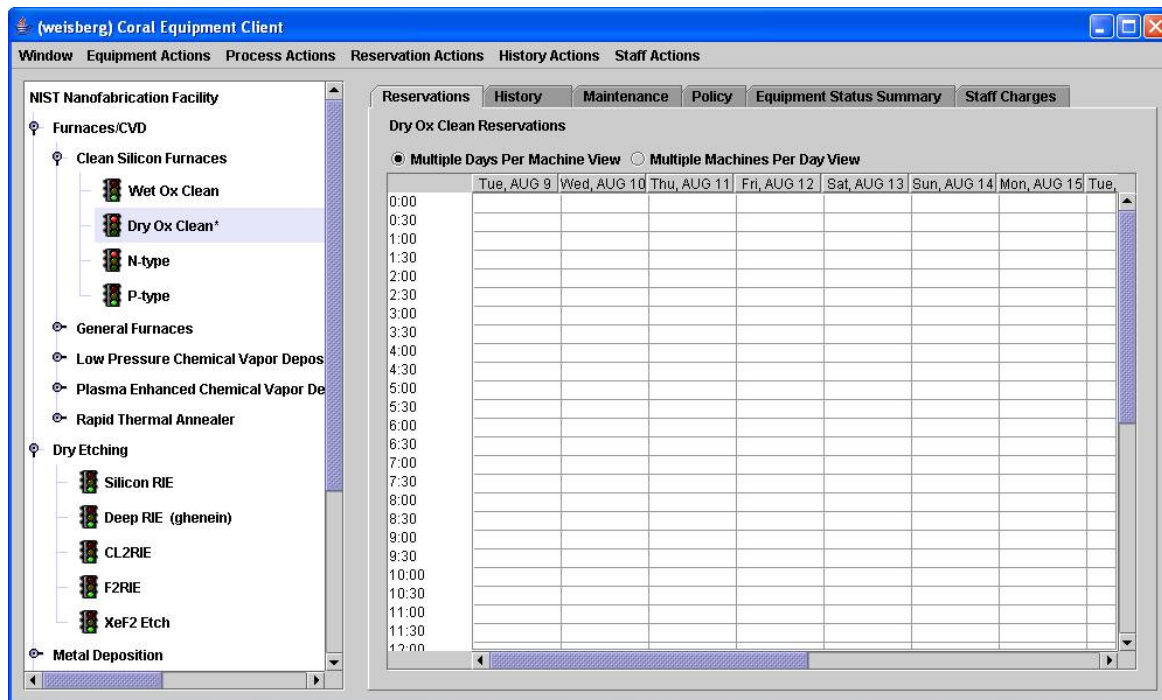


Figure 31: Problem logged, stoplight indicator now red

X. Updating user information

Open the Resource Client by clicking on **Window -> Resource** (Figure 32).

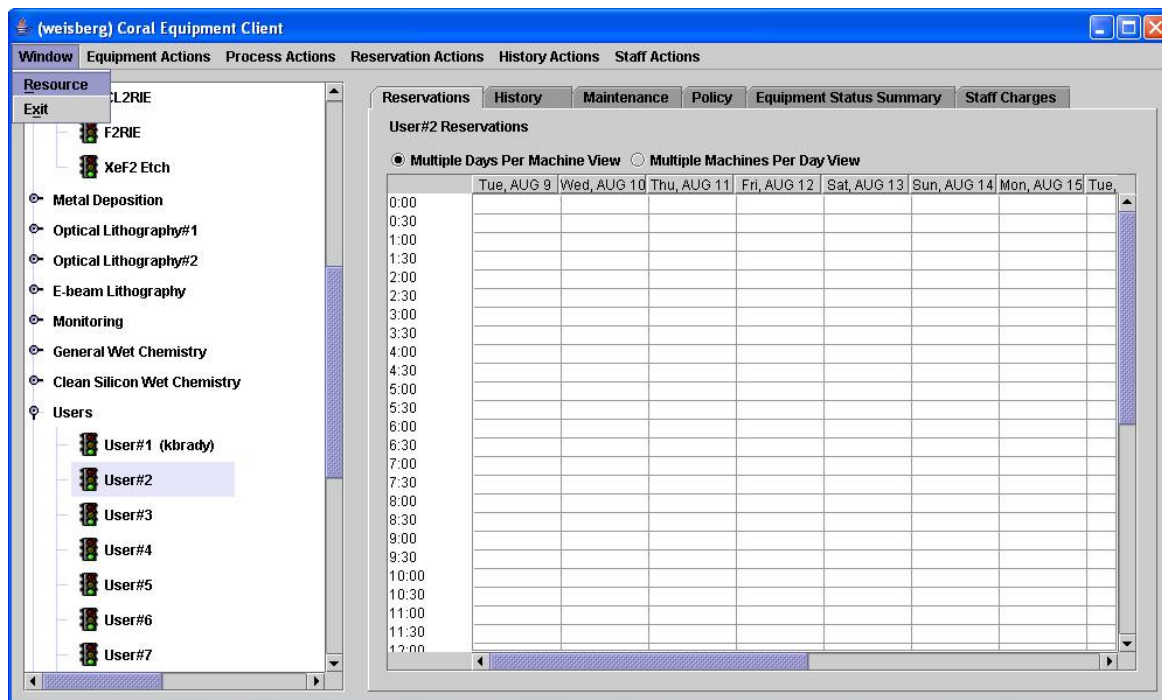


Figure 32: Opening the Resource Client

The Resource Client will initially display a panel on the left for searching and a panel on the right for viewing results. To view all the members in the system, type an asterisk into the input field and press "Search" (*Figure 33*). A listing of all currently active members will appear in the left panel.

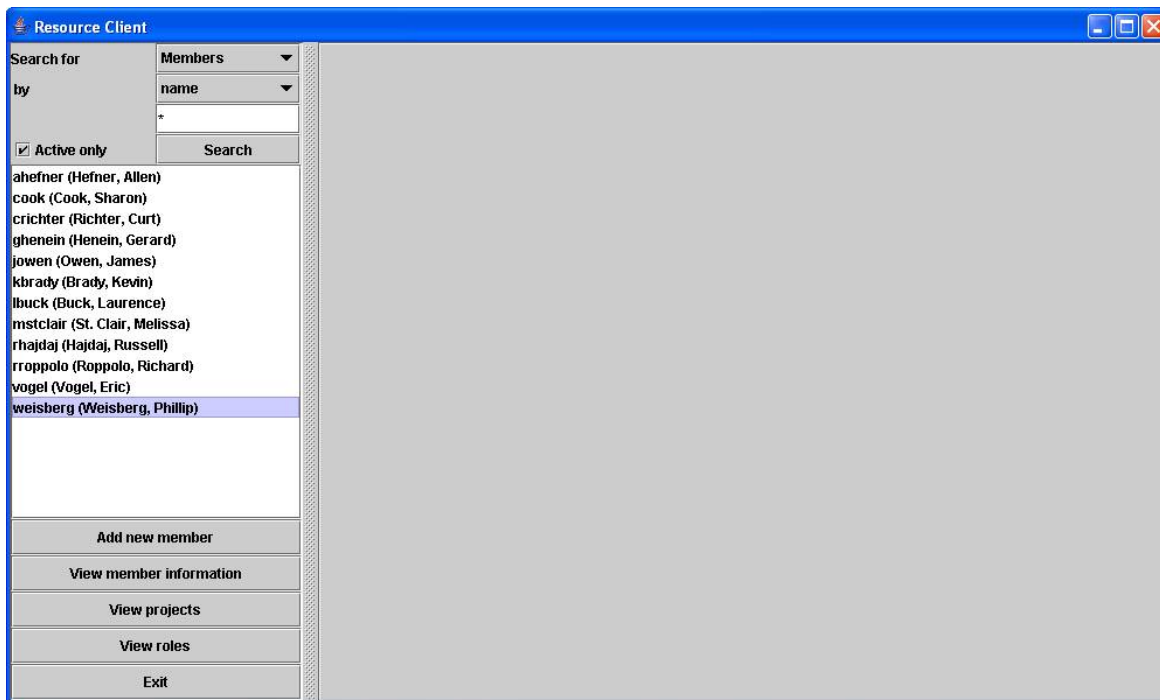


Figure 33: Searching for all members in the Resource Client

Highlight a particular member and click on "View Member Information" to display the user's information in the right panel (*Figure 34*). If you are viewing your own record, the information will be editable.

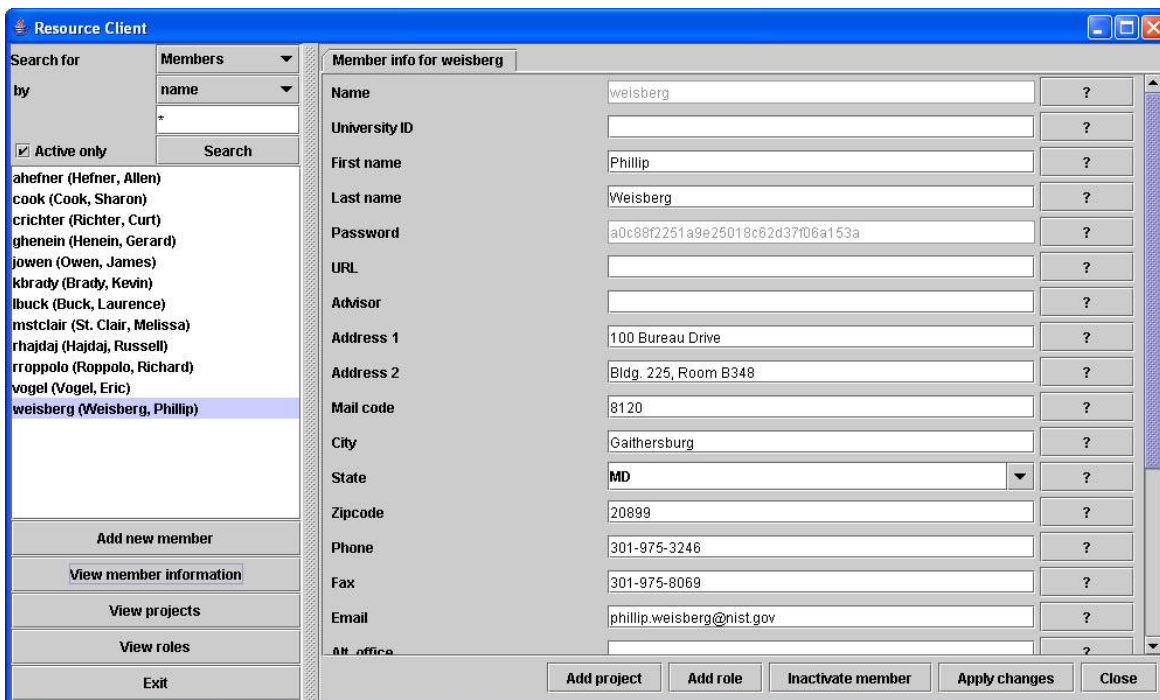


Figure 34: Viewing/Editing user information

XI. Logging out of Coral

Navigate to the user listing in the left panel of Coral and locate your username (*Figure 35*).

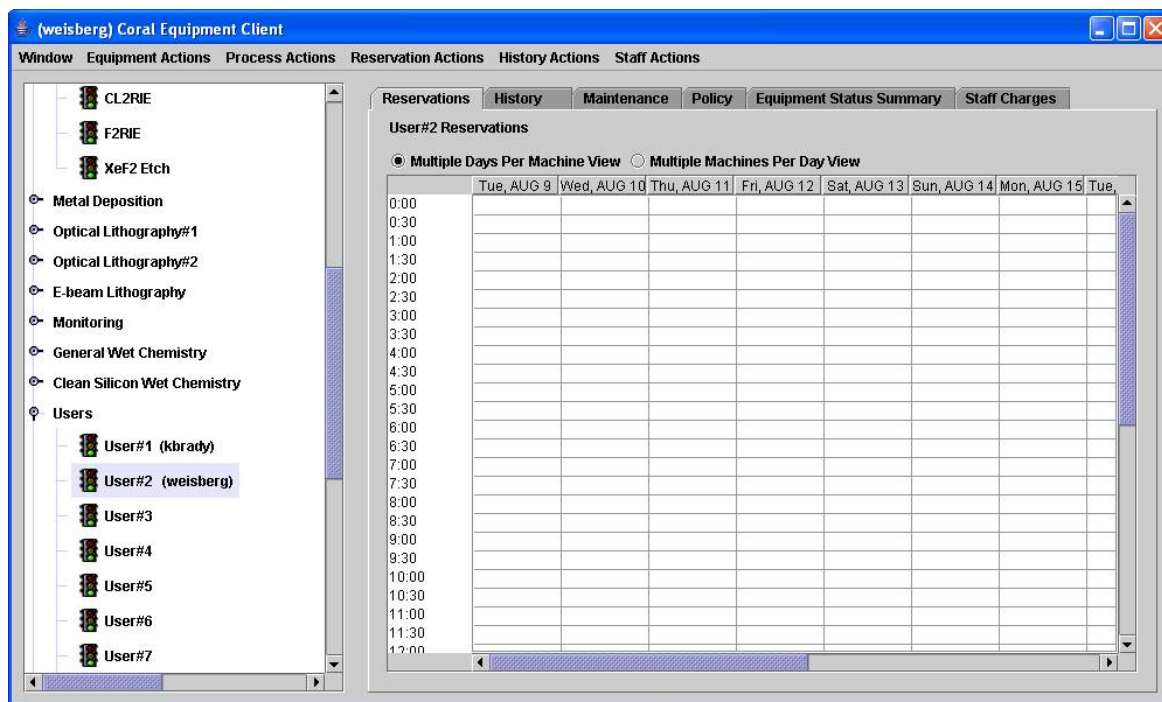


Figure 35: Listing of users currently in the lab

Click on **Equipment Actions -> Disable** to log out of Coral(*Figure 36*).

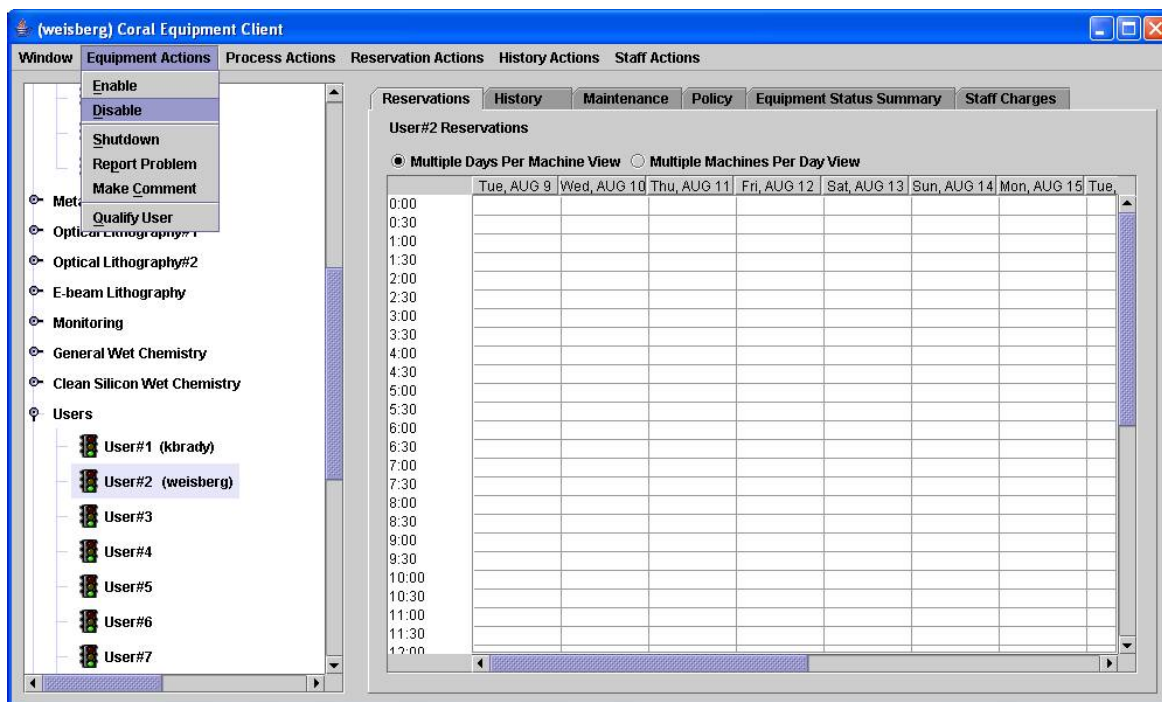


Figure 36: Logging out of Coral

Your username will no longer appear beside the user slot, signifying a successful logout (*Figure 37*).

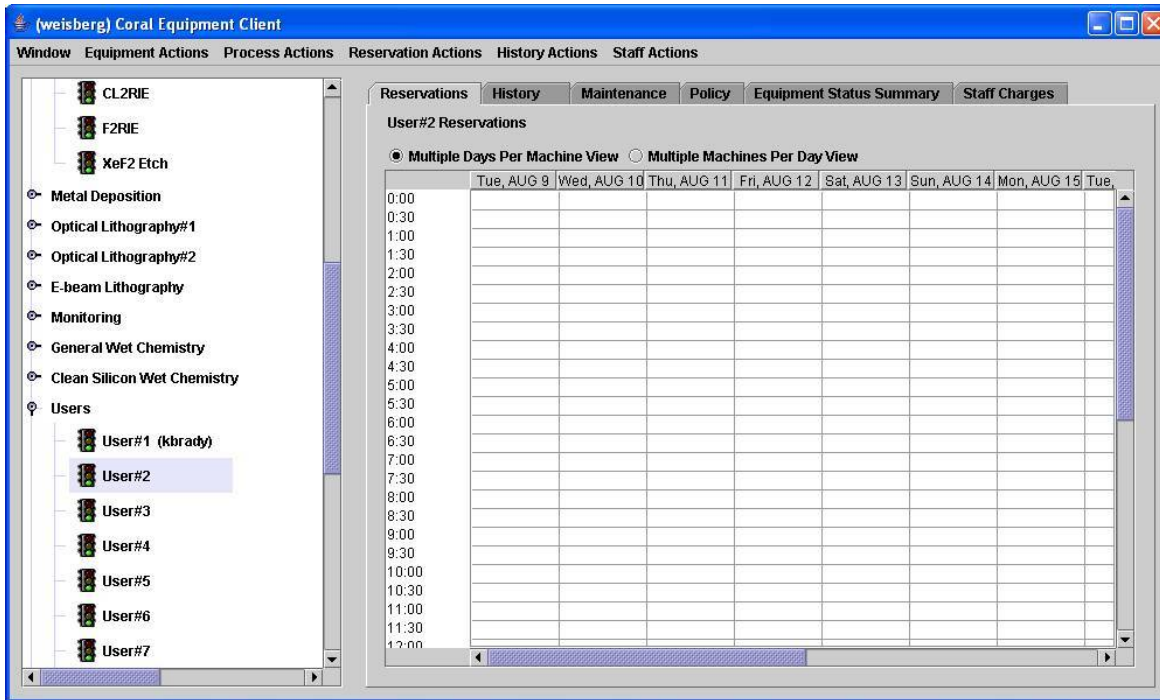


Figure 37: User has logged out

Select **Window -> Exit** to close Coral (*Figure 38*).

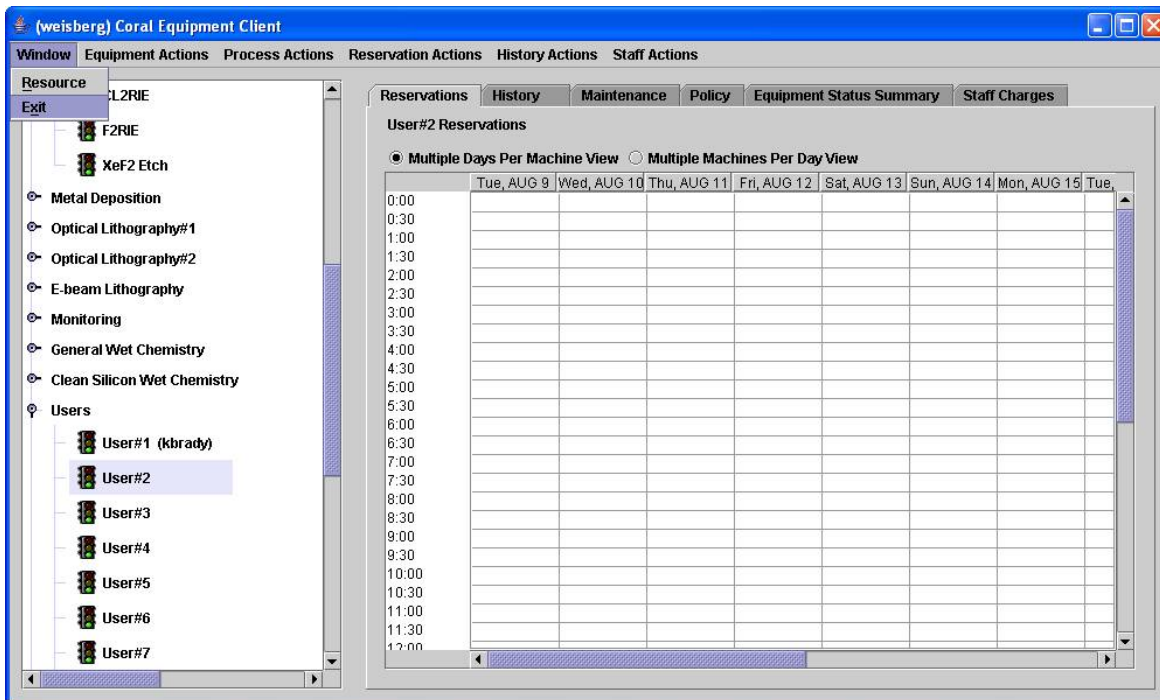


Figure 38: Exit Coral